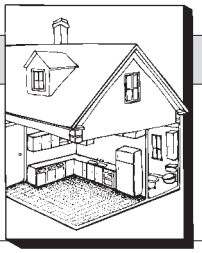

The Work Triangle Plus

by Paul B. Turpin

Even if you haven't tried your hand at kitchen design, you probably know the term *kitchen work triangle*. Even your clients use the phrase. It's a term that came out of 1930's industrial-style time-and-motion studies, and defines the movement of the cook from refrigerator to sink to range. The basic concept is simple: If the appliances and fixtures are too far apart, you waste time and energy walking around all the time. If they're too close to each other, the work spaces are cramped.

However, like all good ideas, it's easy to turn this one into an absolute rule, rather than a flexible guideline. Design has to be practical, but you lose a lot if your thinking is too rigid early on. This can put you in a position of automatically rejecting floorplans that are the best compromise of *all* the variables that have to be accommodated in today's multi-use kitchens.

New Variables

Kitchen designers need to consider two important changes — new appliance technology and modern lifestyles.

Altered Appliances. The kitchen work triangle was conceived when the refrigerator, sink, and range were the three primary kitchen fixtures. But that's changed. The range of yesterday is often several components today: cooktop in one place, a built-in oven elsewhere, and a microwave oven in yet a third place. Larger kitchens often have two sinks. Even the refrigerator may have a companion in another spot.

With appliances, frequency of use is a critical measure. An appliance that is used only a few times a year doesn't need to be as handy as one used each day of the work week. For instance, if the cook is a serious microwave user, a conventional oven will probably only be used occasionally for holiday gatherings. In this case, consider including a small microwave near the refrigerator to handle defrosting and leftover food reheating, along with another larger microwave.

Central Station. In addition to appliances multiplying, kitchens are used for a great deal more than just cooking these days. Dual-income households leave no one home during the day. As a result, the kitchen gets used for fewer hours, but more intensively. It's now a center for family activity that can include kids doing homework, TV/video viewing, laundry, end of the day "debriefing," and more than one person sharing cooking and clean-up responsibilities. Entertaining standards have changed too, so that food that used to be prepared in the kitchen and brought "out" to the guests, may now be prepared with the help of guests and consumed in the kitchen.

These changes add a social element to the kitchen, so the design goal is more than making the work spaces in a kitchen efficient. You also have to integrate these work spaces with other central functions.

To boil it down, start with two principles in mind: 1) the cook(s) need(s) room to work conveniently. This includes work space plus storage convenience (the *new* "work triangle"); *and* 2) other members of the household need to have access to the kitchen, and room for interaction without getting in the cook's way.

Plotting Patterns. I usually start by assessing the household traffic flow in and around the kitchen, and then test that against the cook's needs. As an example, I try to have the cooking area as far out of the traffic flow as possible, so that household members can use the refrigerator and sink without crossing the cook's path. At the same time, I don't want to cut the cook off from the rest of the activities in the room.

Poor household traffic problems can make kitchen redesign seem more difficult to achieve than it really is. Often the customer thinks there simply isn't enough room for everything they want, when in fact, some rearranging will do the trick. The following case study, in which I rearranged space within the existing footprint, illustrates this point.

Case Study

The clients and the floor plan may look familiar to you. The house was a 1950's ranch with a dining/family room addition that was put up next to the kitchen in 1962. By 1980, the owners had lived in the house with a family of five for 19 years, and were ready for a change. The children were grown, and "mom and dad" wanted a kitchen that was comfortable yet suitable for entertaining.

Before. After meeting with the clients, getting their critique of the kitchen, and making my own study, we drew up this list:

- The kitchen seemed impossibly small and crowded.
- The refrigerator blocked the door to the living room whenever it was open.
- The microwave sat on the counter, eating up space that was already in short supply.
- The main passageway ran right through the middle of the work triangle.
- The kitchen's west partition blocked both the line of sight between the cook and the table, and much of the view out to the back patio.
- The washer and dryer sat in a corner of the kitchen.
- The 10 x 20 dining/family room felt long and narrow; the southern end was not much more than a passageway.

After. The key structural change was removing the partition between the kitchen and dining room. When we also moved the washer/dryer next to the water

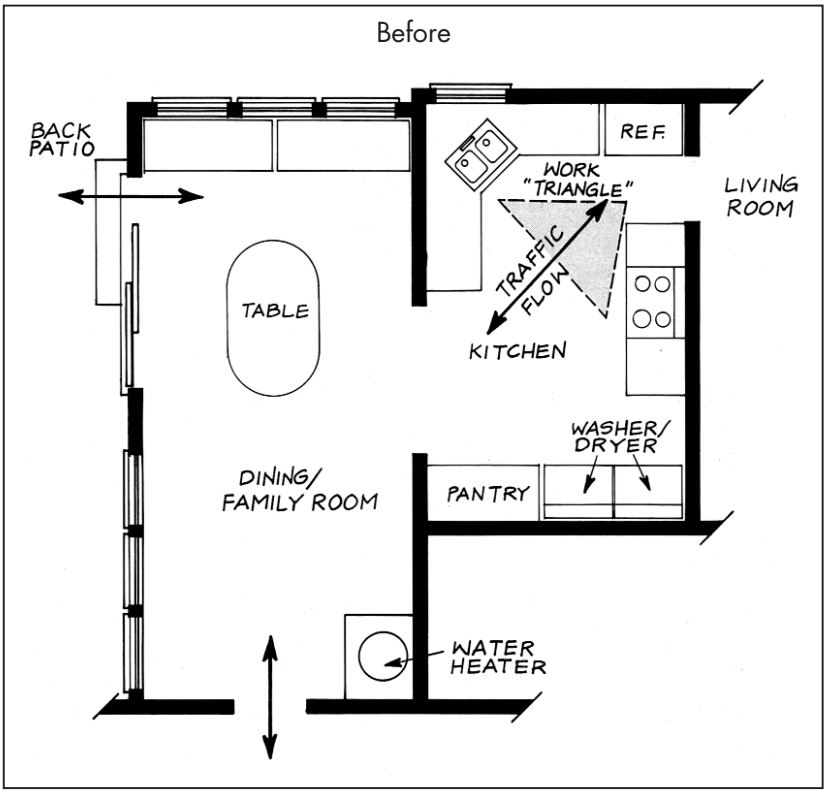

Figure 1. *This* ***before*** *floorplan of a 1950s ranch kitchen and 1960s dining/family room addition, shows how the work triangle occupies one end of the kitchen, leaving it somewhat isolated from the family room and at conflict with traffic to the living room.*

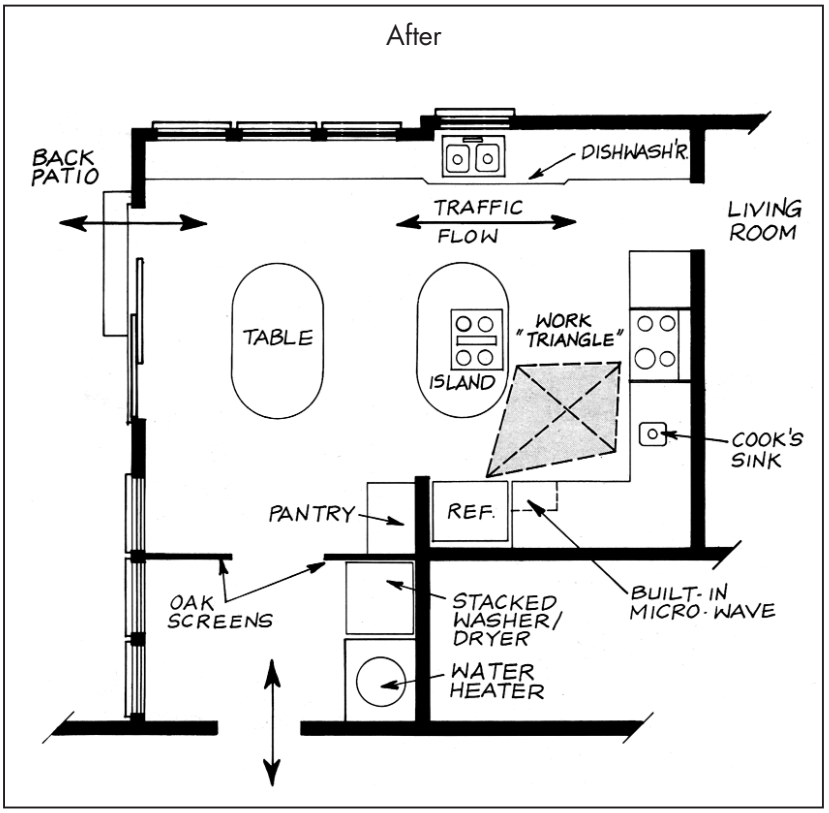

Figure 2. *The **after** plan of the kitchen shows how the washer/dryer and an interior partition were removed, and an oval island with cooktop and small sink were added. This shifted the work triangle away from the traffic pattern to the living room, and created better access and line of sight between the kitchen and family room.*

heater, these changes created a new "blank slate" on which to lay out the kitchen work area.

The centerpiece — literally — is an oval island cabinet that accomplishes several goals:

- Its Jenn-aire downdraft cooktop adds four more burners (which can also be interchanged with plug-in grill or griddle modules) to the kitchen, and provides a showcase for more flamboyant cookery.
- The island also creates a second approach to the refrigerator, helping to keep the work triangle clear.
- The rounded corners provide better circulation around the island than a rectangle would.
- Its shape mirrors that of the the dining room table.

The microwave is built in next to the refrigerator, keeping the counter free. A small sink for washing vegetables keeps the cooking area compact, while a large sink with its adjacent dishwasher creates a separate clean-up area. At the southern end of the dining room, interior screens (made of oak paneling that match the kitchen cabinets) hide the utility area and reinforce the sense of having a single large room.

The effect for the clients is a completely transformed room. What was cramped is now spacious. The back patio, once hard to get to, has become a useful part of the living area of the house. And best of all, what used to feel crowded with five people, has had over twenty guests circulating through it at one time, with lots of room for the hosts to cook while still conversing with their guests. ■

Paul Turpin is a Los Angeles-based remodeling contractor who specializes in kitchen & bath design and remodeling.